



Tammes, P., Morris, R., Brangan, E., Checkland, K., England, H., Huntley, A., Lasserson, D., MacKichan, F., Salisbury, C., Wye, L., & Purdy, S. (2016). *Exploring the Relationship between General Practice Characteristics and Attendance at Walk-in Centres, Minor Injuries Units and Emergency Departments in England*. Poster session presented at NIHR School for Primary Care Research Showcase.

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# Exploring the Relationship between General Practice Characteristics and Attendance at Walk-in Centres, Minor Injuries Units and Emergency Departments in England

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## The problem:

Many ED attendees are self-referred, and this number is increasing (Fig. 1)

Many could be managed in primary care

## Aims

To investigate impact of general practice and population characteristics on ED attendances in a longitudinal design

To investigate the impact of changes within general practices

To test previous findings of cross-sectional studies in a nation-wide context over several years.

## Approach

### Population

General Practices in England in 2009/10 to 2012/13 (4 financial years)

### Data sources

NHS-Comparators, GP-patient-survey, Office of National Statistics, Public Health England

### Outcomes

Self-referred discharged ED attendance rate per 1,000 practice population, standardized by age and gender,

Combined self-referred discharged ED, self-referred Walk-in Centre (WiC) and self-referred Minor Injuries Unit (MIU) attendance rate.

## Potential predictor variables

- Opinion on waiting times in waiting room of practices
- Satisfaction with opening hours
- Having a preferred GP
- Able to see/speak to preferred GP always/often
- MIU and WiC attendance rates

Controlled for: male life-expectancy, proportion of elderly patients, ethnicity, unemployment rates, urban/rural location of practice

## Inclusion criteria

For each year, included practices were:-

- Operative over whole year
- >500 patients
- Response rate to GP Patient Survey >20%, and >100 completed survey forms.
- Self-referred discharged ED rate > 10 per 1,000 patients (since lower rates implausible).

## RESULTS

### Self-referred discharged ED attendance

#### Between practices:

Less dissatisfaction with waiting time, having a preferred GP => lower ED attendance rate

#### Within practices:

Increase in MIU attendance rate over time => decrease in ED attendance rate

### Combined ED, WiC & MIU attendances

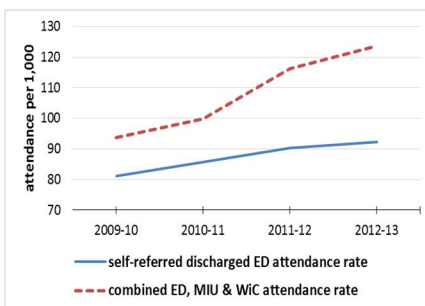
#### Between practices:

Less dissatisfaction with waiting time => lower combined ED, WiC & MIU attendance rate

#### Within practice variance:

Increased satisfaction with opening hours => decreased combined ED, WiC & MIU attendance rate

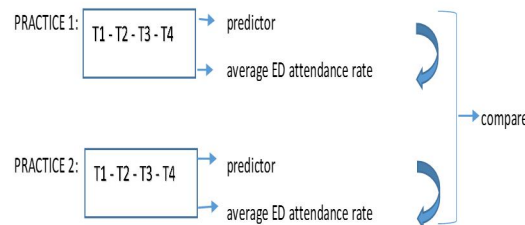
**Fig. 1: Trend in ED attendance rate and the combined ED, MIU & WiC attendance rate.**



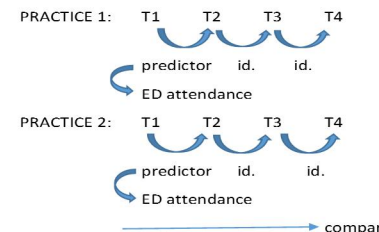
## Statistical methods

Estimated associations *between practices* (Fig. 2) and *within practices* (Fig. 3) over time: Multilevel design

**Fig. 2: Time average (between practice association)**



**Fig. 3: Time specific (within practice association)**



## Conclusions

- Improvements in general practice access and continuity of primary care could reduce ED attendance.

Support for the introduction of 'named GP' scheme in 2014.

- Increase in the use of MIUs might decrease ED attendance rate.

Establishing a MIU near a hospital with an ED might reduce pressure on ED.

- Certain practice demographic profiles showed higher ED attendance.

Additional support measures might be needed for such practices.

## School for Primary Care Research

The National Institute for Health Research School for Primary Care Research (NIHR SPCR) is a partnership between the Universities of Bristol, Cambridge, Keele, Manchester, Newcastle, Nottingham, Oxford, Southampton and University College London.

This poster summarises independent research funded by the National Institute for Health Research School for Primary Care Research. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health. Grant No.

**NIHR** at10

Funded by  
**NHS**  
National Institute for  
Health Research

Funding acknowledgement: This work was funded by a NIHR School for Primary Care Research project grant Contact: Peter Tammes p.tammes@Bristol.ac.uk